CLC status

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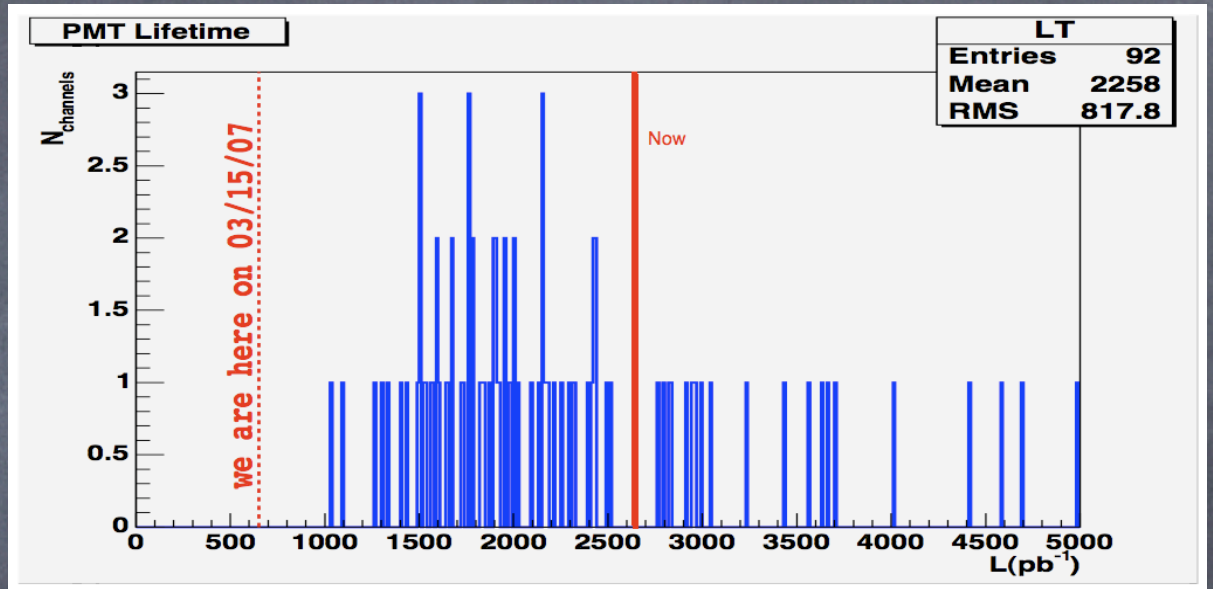
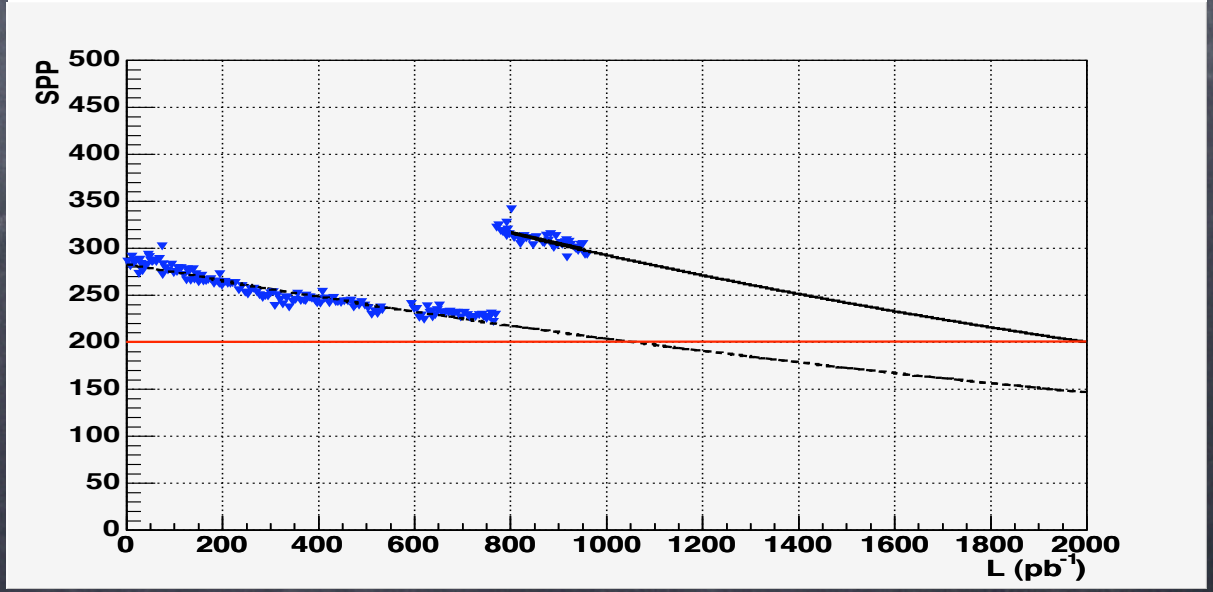
Summary

- Extended PMT's lifetime
- CLC cross-sections
- Plans for shut down
- Usual CLC vs COT linearity check

PMT's lifetime

- Upper plot presented in March 2003
- Suggests:
  - Start replacing PMT's in 0.5/fb
  - Most PMT's are dead in 2/fb
- Instead we increased HV and prolonged PMT's lifetime
- Saved many $'s

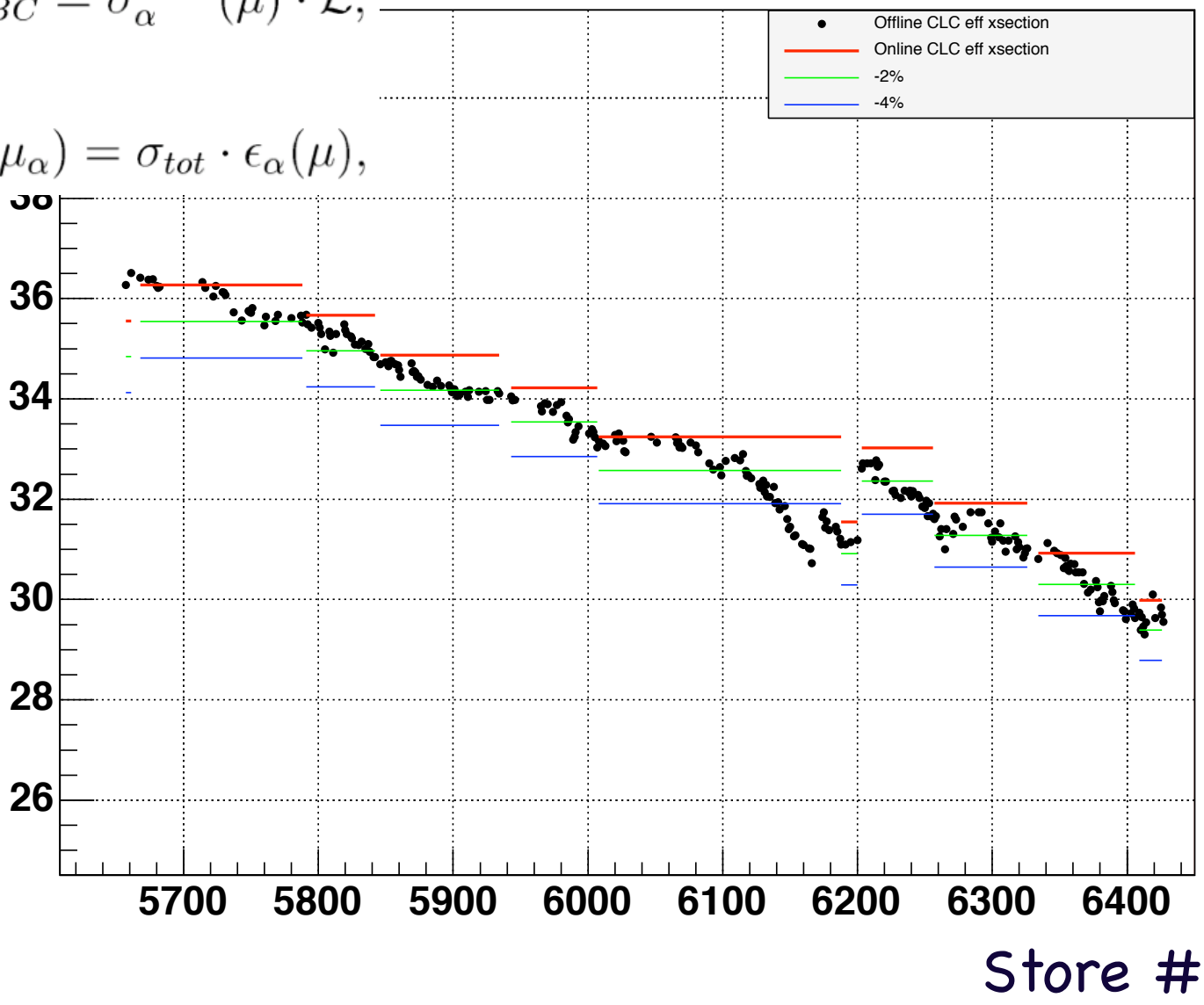




CLC xsection changes

$$\mu_\alpha \cdot f_{BC} = \sigma_\alpha^{CLC}(\mu) \cdot \mathcal{L},$$

$$\sigma_\alpha^{CLC}(\mu_\alpha) = \sigma_{tot} \cdot \epsilon_\alpha(\mu),$$

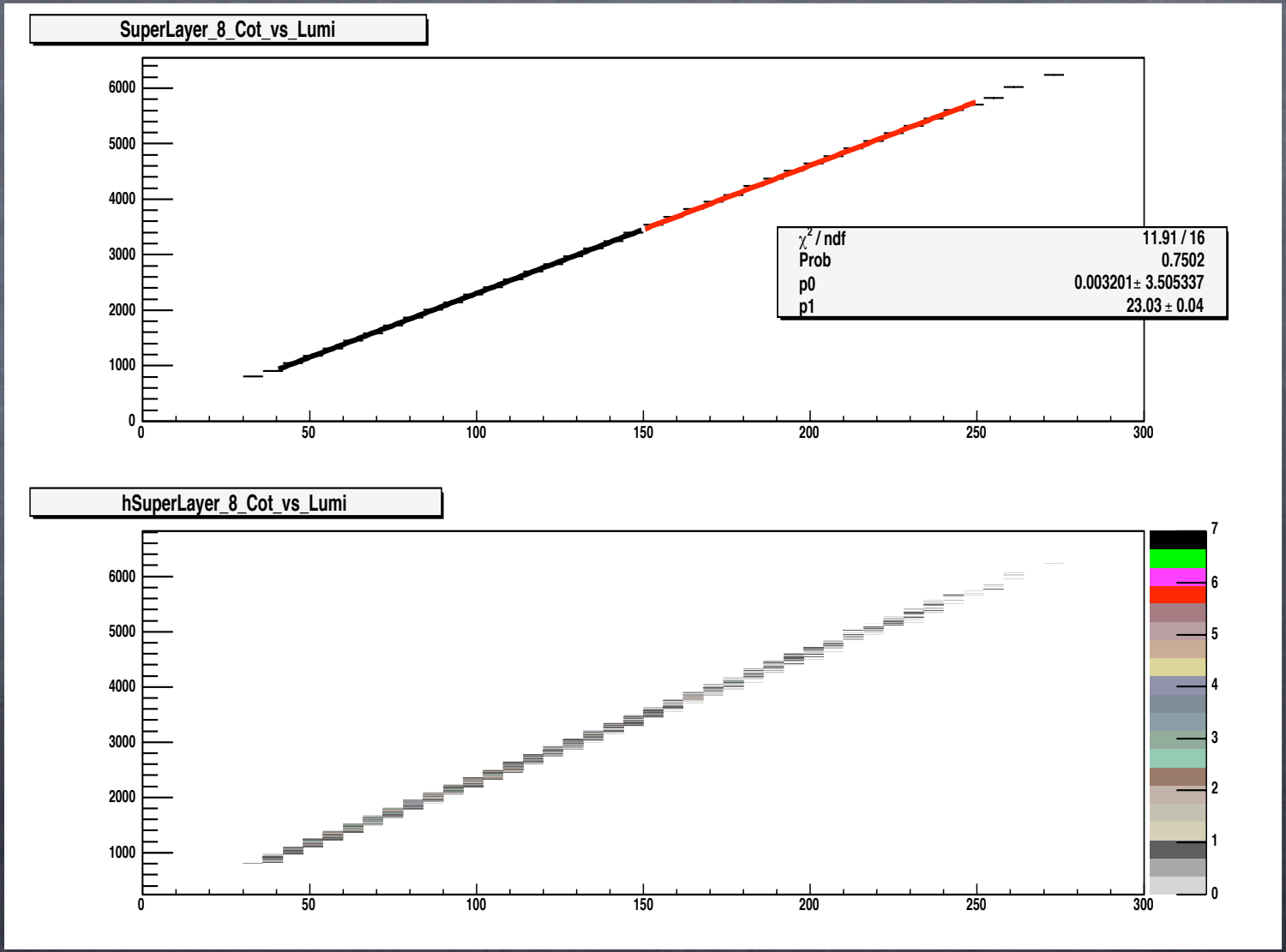


Plans for Shut Down

- Replace all the PMT's with the new ones.
- Out of 44 bases we replaced so far, none have shown any problems
- Need to replace 3 more bases from the old batch

COT vs CLC before

- Data collected in 08/18/08-09/18/08
- X axes -> Lum
- Y axes -> SL8 current
- Fit up to 150E30. Extrapolation to guide the eye.



COT vs CLC before

- X axes -> Lum
- Y axes -> SL8/Lum. Full range is ±4.2%, the CDF lum uncertainty.